

SP

Notice of Allowability

Application No.

10/670,717

Examiner

Midys Rojas

Applicant(s)

DAVID LUICK

Art Unit

2185

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the communication of 5/14/07.
2. ☒ The allowed claim(s) is/are 2-5, 7 and 8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. The Affidavit filed on 5/14/07 under 37 CFR 1.131 is sufficient to overcome the Kissell (US 2007/0043935) reference.

Allowable Subject Matter

2. Claims 2-5, and 7-8 are allowed.
3. The following is an examiner's statement of reasons for allowance:

The Prior Art of Record does not teach nor suggest in the claimed combination the limitations of independent Claims 1 or 7.

Regarding Claim 3, the Prior Art of Record does not teach nor suggest in the claimed combination an apparatus for inhibiting data cache thrashing comprising, a thread ID indicator; an address generator having a cache index indicator and a plurality of cache index bits; a cache memory; a selector for selecting between the thread ID indicator and the cache index indicator, the selector outputting an upper index indicator, and at least one cache miss counter, the at least one cache miss counter counting cache misses, wherein the at least one cache miss counter controls the selector; in combination with **when the thread ID indicator is selected by the selector, the thread ID indicator is output to the upper index indicator, and the upper index indicator is concatenated with the plurality of cache index bits to form an address for retrieving an entry from the cache memory.**

Regarding Claim 7, the Prior Art of Record does not teach nor suggest in the claimed combination a method for inhibiting data cache thrashing comprising the actions of: loading at least one instruction register, the at least one instruction register having a thread ID indicator; generating an effective address having a cache index indicator and a plurality of cache index bits;

Art Unit: 2185

selecting an upper index indicator between the thread ID indicator and the cache index indicator; retrieving an entry from the cache memory indicated by the address; checking an enable cache indicator in a machine state register; in combination with **if the enable cache indicator is set, selecting the thread ID bit; and if the enable cache indicator is not set, selecting the cache index indicator wherein the address is formed by concatenating the upper index indicator with the plurality of cache index bits.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Midys Rojas whose telephone number is (571) 272-4207. The examiner can normally be reached on M-F 5:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sanjiv Shah can be reached on (571) 272-4098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2185

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Midys Rojas/

Midys Rojas

Examiner

Art Unit 2185

MR



SANJIV SHAH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100